



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

[Handwritten signature]

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/291,936

04/15/1999

MICHIHIRO TAMUNE

103253

2788

25944

7590

04/23/2004

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

HANNETT, JAMES M

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 04/23/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/291,936

Applicant(s)

TAMUNE, MICHIIRO

Examiner

James M Hannett

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 5-8 and 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments, see Amendment B, filed 3/10/2004, with respect to the rejection(s) of claim(s) 1-18 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of USPN 5,434,640 Takagi et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 1: Claims 1-4 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,434,640 Takagi et al in view of USPN 5,995,144 Sasakura.
- 2: As for Claim 1, Takagi et al depicts in Figures 1 and 7 and teaches on Column 5, Lines 35-54 and Columns 7-8, Lines 58-68 and 1-11 a camera comprising: a photographic image capturing device (15) that outputs color image data by capturing a subject image passing through a taking lens (3); an analytic image capturing device (11) provided at a position that is substantially conjugate with said photographic image capturing device (15) relative to the taking lens (3), that receives light forming the subject image and outputs color image data for scene analysis; an analyzing circuit that performs scene analysis output by said analytic image capturing device. (21-23). Furthermore, Takagi et al teaches that the image data output from the image capture device (11) is analyzed and used to calculate the exposure time for the camera. Therefore, it is viewed by the examiner that the image data output by said photographic image

Art Unit: 2612

capturing device (15) is based upon scene analysis results output by said analyzing circuit (21-23).

Takagi et al teaches using a photographic film (15) for the photographic image capturing device, and does not teach that the photographic image capturing device can be an image sensor. Furthermore, Takagi et al does not teach an image processing circuit that performs image processing on the color image data output by said photographic image capturing device (15).

Sasakura depicts in Figure 5 and teaches on column 4, Lines 25-37 that it is advantageous to use an image sensor (10) to obtain an image in a camera. Sasakura further teaches that it is advantageous to perform signal processing (11) on the image data output from the image sensor (10). Sasakura teaches that this method is advantageous because it allows a user to capture an image digitally so that the image data can be manipulated using image processing techniques in order to improve image quality.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the film capture unit (15) in Takagi et al with an image sensor and image signal processing circuitry as taught by Sasakura, in order to allow a user to capture digital images and manipulate the image data using image processing techniques in order to improve image quality.

Takagi et al in view of Sasakura does not teach that the CCD used as the photographic image capturing device to capture an electronic image is a color image sensor.

Official notice is taken that it was well know in the art at the time the invention was made to use color CCD's to enable a camera to capture color images.

Art Unit: 2612

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a color image sensor for the photographic image capturing device in order to capture color images.

3: In regards to Claim 2, Takagi et al teaches in Figure 4 and on Column 5, Lines 48-50 that the analytic image capturing device (11) has 1035 regions.

Official notice is taken that it was well known in the art at the time the invention was made to use high resolution image sensors with more than 1035 regions in digital cameras in order to enable the camera to capture images with very high resolution.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a high resolution image sensors with more than 1035 pixels for the photographic image capturing device to enable the camera to capture images with very high resolution.

4: As for Claim 3, Takagi et al teaches on Column 7, Lines 42-68 an analyzing circuit (21-23) that calculates parameters including coefficients and gains for various types of image processing performed at said image processing circuit.

5: In regards to Claim 4, Takagi et al teaches on Column 6, Lines 61-68 the analytic image capture device (11) is divided into a plurality of areas (regions) each having a plurality of pixels (R, G, and B) receiving the subject image and said analyzing circuit calculated the parameters based upon color image data for scene analysis output from said plurality of areas.

6: As for Claim 11, Takagi et al depicts in Figures 1 and 7 and teaches on Column 5, Lines 35-54 and Columns 7-8, Lines 58-68 and 1-11 an information recording apparatus comprising: at

Art Unit: 2612

least a first image capture device (15) and a second image capture device (11) that output image data including color information by capturing a subject image passing through a taking lens (3); an analyzing circuit (21-23) that performs scene analysis on the subject image using image data output by said second image capture device (11); and Furthermore, Takagi et al teaches that the image data output from the image capture device (11) is analyzed and used to calculate the exposure time for the camera. Takagi et al teaches an image processing circuit that performs image processing on image data output by said second image capturing device (11) based upon scene analysis results obtained at said analyzing circuit. Takagi et al teaches on Column 7, Lines 42-68 an analyzing circuit (21-23) that calculates parameters including coefficients and gains for various types of image processing performed at said image processing circuit.

Takagi et al teaches using a photographic film (15) for the photographic image capturing device, and does not teach that the photographic image capturing device can be an image sensor.

Sasakura depicts in Figure 5 and teaches on column 4, Lines 25-37 that it is advantageous to use an image sensor (10) to obtain an image in a camera. Sasakura teaches that this method is advantageous because it allows a user to capture an image digitally so that the image data can be manipulated using image processing techniques in order to improve image quality.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the film capture unit (15) in Takagi et al with an image sensor and image signal processing circuitry as taught by Sasakura, in order to allow a user to capture digital images and manipulate the image data using image processing techniques in order to improve image quality.

Art Unit: 2612

Takagi et al in view of Sasakura does not teach that the CCD used as the photographic image capturing device to capture an electronic image is a color image sensor.

Official notice is taken that it was well known in the art at the time the invention was made to use color CCD's to enable a camera to capture color images.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a color image sensor for the photographic image capturing device in order to capture color images.

7: In regards to Claim 12, Takagi et al teaches in Figure 4 and on Column 5, Lines 48-50 that the analytic image capturing device (11) has 1035 regions.

Official notice is taken that it was well known in the art at the time the invention was made to use high resolution image sensors with more than 1035 regions in digital cameras in order to enable the camera to capture images with very high resolution.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a high resolution image sensors with more than 1035 pixels for the photographic image capturing device to enable the camera to capture images with very high resolution.

8: As for Claim 13, Takagi et al teaches on Column 7, Lines 42-68 an analyzing circuit (21-23) that calculates parameters including coefficients and gains for various types of image processing performed at said image processing circuit.

9: In regards to Claim 14, Takagi et al teaches on Column 6, Lines 61-68 the analytic image capture device (11) is divided into a plurality of areas (regions) each having a plurality of pixels

Art Unit: 2612

(R, G, and B) receiving the subject image and said analyzing circuit calculated the parameters based upon color image data for scene analysis output from said plurality of areas.

Allowable Subject Matter

10: Claims 9 and 10 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach or suggest the use of a camera that has a viewfinder, a quick return mirror, a photographic image capture device and a color analytic image capture device; wherein arithmetic operations are performed on the image data output from the color analytic image capture device and coefficients and gains calculated from the image data from the analytic image capture device are used in image processing on the color image data that is output from the photographic image capturing device.

11: Claims 5-8, and 15-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6,160,581 Higashihara et al see Figure 3.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hannett whose telephone number is 703-305-7880. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.


Art Unit: 2612

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2612

JMH
April 12, 2004


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600